

of fractional scores. Tail-pattern may be treated as one character or several. To reduce subjectivity, it was assessed on each of 6 characteristics, which were scored 0, 0.5 or 1.0 according to an assessment of the degree of resemblance to *O. phillipsi*. The 6 scores were then summed and divided by 6 to give an overall tail score of maximum 1, thereby avoiding giving undue weight to this feature. The 6 characteristics were: (1) shape and (2) extent of black on central pair of rectrices; (3) shape and (4) extent of black on outer webs of all other i.e. outer rectrices; (5) shape and (6) extent of black on inner webs of outer rectrices. In fact, treating upperparts as one character or tail as more than one, divorces *O. phillipsi* even further from *O. oenanthe* and *O. pleschanka* and brings it closer to the black-and-white group. In other words, Table 2 understates the differences between *O. phillipsi* and *O. oenanthe*/*O. pleschanka* and minimises its similarities with members of the black-and-white group.

However, despite the evident distance of *O. phillipsi* from *O. oenanthe*, these are the only two *Oenanthe* spp. possessing a french-grey back, suggesting that *O. phillipsi* may link the 2 groups of species.

Table 2 reveals that *O. phillipsi* possesses some quite distinct characteristics, such as its pale grey wing-coverts, which are unique in the genus. Also, a distinct immature plumage based on the colour of the face, throat and breast is unusual, and approached in only the Hooded Wheatear *O. monacha* and possibly the Desert Wheatear *O. deserti*, in which immature males may have some white mottling on the black of the underparts. It seems clear that *O. phillipsi* is a well-differentiated species, and is certainly not sufficiently close to be regarded as a subspecies of any other species of wheatear.

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A new generic status for the Dappled Mountain Robin

by M. P. S. Irwin & P. A. Clancey

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A recent study of the Spot-throat *Modulatrix stictigula* (Reichenow) by Irwin & Clancey (1985) has again focussed attention on the limits of the small Afrotropical robin genus *Modulatrix* Ripley, 1952. They concluded that, despite doubts expressed elsewhere, *stictigula* was correctly placed in the

Turdidae, even though it lacked the 'turdine thumb' on the syrinx, considered to characterise the Turdidae (=Muscicapidae, *sensu* Olson 1984). This however, left open the question of the relationship of the Dappled Mountain Robin *Modulatrix orostruthus* (Vincent), the only other species presently placed in the genus. Originally described by Vincent (1933) as *Phyllastrephus orostruthus*, it was removed to the Turdidae by Benson & Irwin (1975). Irwin & Clancey (1985) suggested that the generic relationship of *orostruthus* be re-investigated using a more traditional approach, as anatomical material was lacking and the syrinxal morphology undescribed. One of us therefore (PAC) has re-examined the material in the British Museum (Natural History) at Tring. As a result it is now clear that, contrary to the decision of Benson & Irwin (1975), the wide range of differences existing between *orostruthus* and the sympatric but questionably competing *M. stictigula*, are sufficiently divergent one from another to warrant generic separation and the placement of *orostruthus* in a new genus.

Prima facie, *M. orostruthus* is anomalous rather than aberrant, but a re-evaluation of its status confirms that Benson & Irwin were justified in recommending its transfer from the Pycnonotidae to the Turdidae. However, their decision in 1975 that the species *stictigula* and *orostruthus* are congeneric is now seen as unsustainable. The 2 taxa differ in a wide range of both morphological and plumage features, especially over the ventral surfaces. *M. orostruthus* differs from *stictigula* in having a longer bill, the tomium of the maxilla strongly notched back from the tip, and the lower mandible swept-up towards its apex to impart a somewhat retroussé or awl-shaped aspect to the bill when viewed laterally (Fig. 1). The wing-formula also varies, with the first primary (from outermost inwards) the shortest, primaries 2-5 increasingly longer, with the 5th the longest of the series. The tail profiles are comparable.

Ventrally, the plumage facies of the 2 species are widely divergent; *orostruthus* has the malar surfaces and fore-throat pale yellowish, lightly scaled with olive, the remainder of the underside being light primrose yellow, with the breast and sides heavily striated with rather nebulous greyish olive blotches, the flanks almost immaculate dark grey to brownish olive. In contrast, in *M. stictigula* the well-demarcated throat-patch or gorget has the ground pale vinaceous buff, heavily transversely barred with black (hence the name *stictigula*), the rest of the surface deep vinaceous rufous, the flanks overlaid with saturated olive or olive-brown.

The long, notched and awl-shaped bill, very short rictal bristles and bulbul-like, or even rock pipit-like, ventral aspect of *M. orostruthus* reveal the basis of the reasoning behind Vincent's initial referral of this species to the genus *Phyllastrephus* Swainson, 1831.

We now consider it inadvisable to continue to associate *orostruthus* and *stictigula* as congeneric, but treat both as members of the Turdidae, proposing for the former the

genus *Arcanator* nov.

Type. *Phyllastrephus orostruthus* Vincent, *Bull. Brit. Orn. Cl.* (1933) Vol 53, p. 133: Namuli Mtn, northern Mozambique, at 4800 ft a.s.l. (15°21'S, 37°04'E).

Diagnosis. *Arcanator orostruthus* (Vincent) has the dorsum, wings and tail comparable to *Modulatrix*, as recently defined by Irwin & Clancey (1985), but the underside is markedly different, lacking the development of a barred gorget

and lacking rufous to any part of the ventral surface, being entirely pale yellowish, darker over the ground of the breast and sides, these parts heavily blotched and streaked with greyish olive or dark olive, heaviest over the breast; flanks almost immaculate olive. Wing-formula differs with 5th primary longest, as opposed to 7th in *stictigula*. Bill markedly longer, the mandible more strongly notched back from the tip and the maxilla more sharply swept-up terminally, effecting a more retroussé or awl-shaped outline to the bill (Fig. 1). Rictal bristles very short.



Lateral aspect of head of adult of the Dappled Mountain Robin *Arcanator orostruthus* (Vincent).

Monotypic, but divisible into 3 races, from north to south as follows:

- (a) *A.o. amani* (Sclater & Moreau), 1935: Amani, East Usambara Mts, northeastern Tanzania.

Paler over upper-parts, wings and tail than nominate; face also paler. Below more strongly yellowish, the pectoral and lateral blotching warmer, less cold greyish olive. Wing of type 87.5 mm.

Known only from the East Usambara Mts.

- (b) *A.o. sanjei* (Jensen & Stuart), 1982: Mwanihana Forest, Uzungwa Mts, eastern Tanzania.

Similar to the nominate race over the upper-parts, wings and tail, but more olive tinged and base of tail dull tawny-olive rather than chestnut. Below, with blotching darker and heavier. Somewhat larger (wing of type 90.5 mm *versus* 83 mm in *M.o. orostruthus*) and bill rather heavier.

Known only from the Uzungwa Mts.

- (c) *A.o. orostruthus* (Vincent), 1933: Namuli Mtn, northern Mozambique.

Upper-parts darker reddish olive-brown, merging to chestnut over the rump and upper tail-coverts. Wings reddish olive, the primaries paler on the outer vanes. Tail dull vinous chestnut. Venter pale primrose yellow, the breast and side heavily blotched and streaked dark greyish olive; flanks pale olivaceous.

Known only from Namuli Mtn. Perhaps as far south as Mt Gorongosa.

Gender. Masculine.

Range. Forests within the Tanganyika-Nyasa montane forest group of Moreau (1966), in northeastern and eastern Tanzania, south to the interior of highland Mozambique. Restricted to evergreen forest, perhaps more in the understorey and not the ground stratum as in *Modulatrix*.

Etymology. *Arcanator*, from Latin *arcanus* secret or hidden – that which remains obscure.

Discussion

Two proposals have been made why *Arcanator orostruthus* should be so uncommon. Hall & Moreau (1966) suggested that it had been over-run and

largely replaced by the ubiquitous forest bulbul *Phyllastrephus placidus* which forages in the lower vegetation, but seldom on the ground. This idea lost support when it was shown that *orostruthus* was not a bulbul and competition therefore unlikely. More recently Stuart (1981) has argued, on the basis of *stictigula* and *orostruthus* being congeneric and therefore ecologically similar (which no longer applies), that *M. stictigula* was more likely than *P. placidus* as a competitor with *A. orostruthus* (whose ecology is virtually unknown), noting that *orostruthus* occurs in intermediate level forests and survives in 2 (now 3) known localities, one where *stictigula* is very rare (East Usambaras) and another where it is absent (Namuli). Since then, however, *orostruthus* has been collected in the Mwanihana forest, in the Uzungwa Range, Tanzania, where *stictigula* is also found, which further weakens Stuart's argument. It was also suggested by Stuart that where *stictigula* is absent in low-lying forests, it may be replaced there by the babbler *Trichastoma (Illadopsis) rufipennis*, which is mostly a ground feeder.

If the rarity of *orostruthus* has resulted from interspecific, as opposed to intergeneric, competition, the question may be posed as to how long a less successful species can continue to survive independently in 3 widely sundered localities, with the added possibility that there are other unknown localities. Conceding well-marked subspecific differentiation, such separation can only have been longstanding; it must certainly pre-date the climatic optimum at c. 6 000 BP and was presumably prior to the onset of the extreme aridity of the last glacial period that ended around 18 000 BP (Sarnthein 1978; see also Dowsett 1980). It is improbable that an 'unsuccessful' species could have survived over such a time span at the low levels of individual density which apply to the Dappled Mountain Robin. It is more likely that *A. orostruthus* is in some way ecologically specialised, with a naturally low density throughout its range which is unrelated to competitive factors. *A. orostruthus* is unlike any other Afrotropical forest turdine in colour, which may be a reflection of differences in ecology. There may be an adaptive advantage in possessing a bulbul-like colour pattern, as also in the structurally *Phyllastrephus*-like bill.

We do not doubt that the plain-tailed erithacine genera of Afrotropical forest robins to which *Modulatrix* and *Arcanator* belong are monophyletic. They constitute an important evolutionary element in the forest avifauna, have an essentially tropical distribution and are probably primitive. Hall & Moreau (1970) noted that about one third of the living species of Turdidae occur in the Afrotropical region, where the family shows a wider range of adaptability and choice of habitat than any other group of passerines. There are accordingly strong grounds for believing that the early radiation and diversification of the Muscicapidae *sensu* Olson (1984) may have been an Afrotropical event. Not unexpectedly, the least derived and more primitive members of this radiation would be among the Turdinae, in particular amongst the erithacine genera. All the Turdinae are unspecialised (in the relative sense) arthropod gleaners in the forest ground stratum, and it would not be surprising if some of the most primitive among them were to lack a derived syringeal morphology (confirmed at present only in *Modulatrix*). This argument neither contradicts nor invalidates Olson's suggestion that a derived syringeal morphology and the possession of the 'turdine thumb' indicates a common ancestry, though it may now be necessary to modify the definition in this regard to accommodate the muscicapine radiation.

If the Old World insect eaters in the Muscicapidae are of Afrotropical origin, such a view would be consistent with the concept of a parallel radiation of the Timaliidae in Asia as a sister group. It also remains highly probable that some present-day Palaearctic species, such as the European Robin *Erithacus rubecula*, form an integral part of the same evolutionary focus of erithacine genera; however, it is beyond the scope of the present discussion to consider the implications of relationships of this type amongst Palaearctic elements. It suffices to remember that the earlier Tertiary avifauna of Europe had strong Afrotropical affinities and included representatives of now wholly tropical families (Olson 1985). It would be surprising therefore if parts of extra-tropical Europe had not played a role in the early diversification of the Muscicapidae and that some of their descendants were not still part of the present-day Palaearctic avifauna.

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Some range extensions and other unusual records of Andean birds

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The knowledge of distribution of Neotropical birds is still fragmentary. A recent upsurge of interest in Andean birds has led to numerous range extensions, discovery of new taxa, and above all an impression of disjunct distributions, even of widespread taxa (see e.g. Graves 1985). Yet, areas